Abstract of the Disclosure

A system and a method for determining the leakproofness of an object having a first cavity. The system includes a closed chamber having a second cavity arranged to envelope the object, an evacuator for lowering the pressure inside one of the cavities, a supply for supplying a tracer gas into the one of the cavities rendered the higher pressure, a detector sensitive to the tracer gas and an introducer for introducing a transport gas into the one of the cavities rendered the lower pressure. Furthermore, the evacuator is arranged to compress arriving gas to the ambient pressure of the chamber and to communicate with the detector, which is suited for operation at the ambient pressure of the chamber. The tracer gas includes hydrogen.